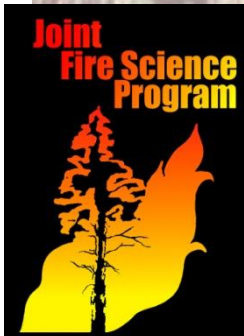


# Learning from Escaped Prescribed Fire Reviews

**A Joint Fire Science Program Project  
(JFSP # 10-1-05-1)**

**PI's: Anne Black, Dave Thomas,  
Jennifer Ziegler  
Jim Saveland**

Webinar for Lessons Learned Center  
February 21, 2012



# Today's Objective

Overview of methods, participants, results,  
interpretation,  
discussion.

- Project overview
  - Objectives
  - Methods
  - Participants
- Results – focusing on data resulting in recommendations
  - illustrate key themes
- Concepts to help interpret and use results
- Discussion

# Project Objectives

- ❖ Investigate existing learning
- ❖ Identify ways to improve organizational learning

# Methods

## **Inter Agency Workshops**

organized around concept of Dialogue

Held 5:

- Portland – January
- Denver, Salt Lake City - March
- Tucson - April
- Florida – July

2 day workshops

- < 25 people
- Range of responsibilities (ground – WO)
- Range of agencies

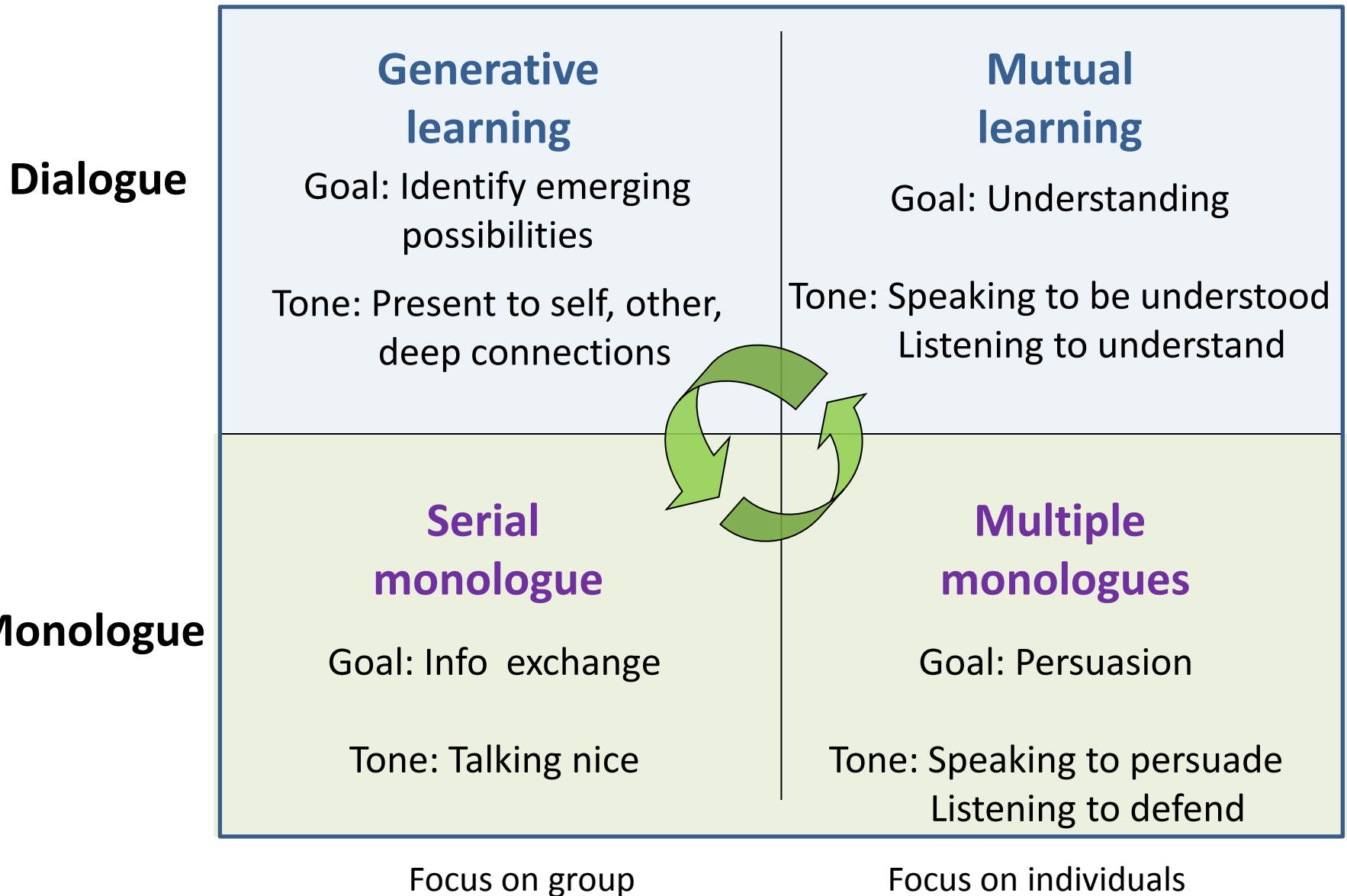
# Workshop Flow

- Day 1 – Drilling down into learning
  - ✓ Personal stories of insight and action
- Day 2 -- Barriers/facilitators to learning
  - ✓ Processes, Products, Transfer methods

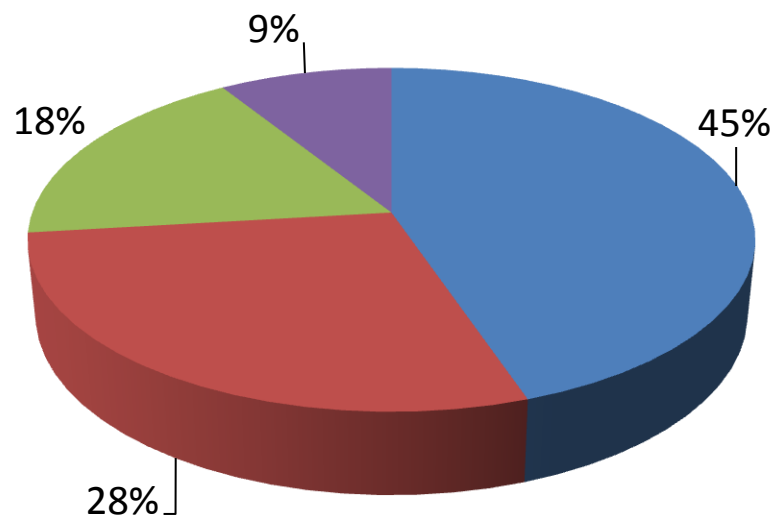
# How do we define learning?

	Event	Review Process	Review Product	Transfer Activities
Individual	<i>INSIGHT – ‘aha’</i> <i>ACTION – new behavior</i>			
Burn Team				
Review Team				
Peers/Units				
Organization				

# How do we set the tone for learning?



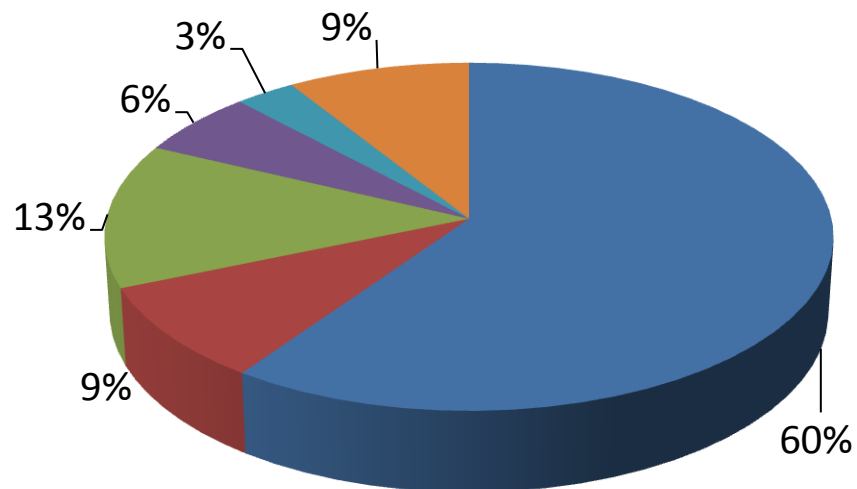
# Participants



## Organizational level

- District (30)
- Forest/Refuge/Park (19)
- Region/State (12)
- National (6)

67 Total



## Agency

- NFS (40)
- NPS (6)
- FWS (9)
- BLM (4)
- BIA/Tribe (2)
- Other (6)

**Other: TNC (2), FUTA (1), PFTC (1), LLC (1), AD (1)**



# Participants - Positions Represented

## **District**

District/Zone AFMO (5)  
District/Zone FMO (8)  
District Fuels Specialist (4)  
Zone Fuels specialist (2)  
Zone Fire Staff Officer (1)  
Engine Captain (2)  
Seasonal (1)  
Smokejumper (1)  
WF Module (2)  
Hotshot , Asst Sup (1)  
AD (1)  
District Ranger (2)

## **Forest/Park/Refuge**

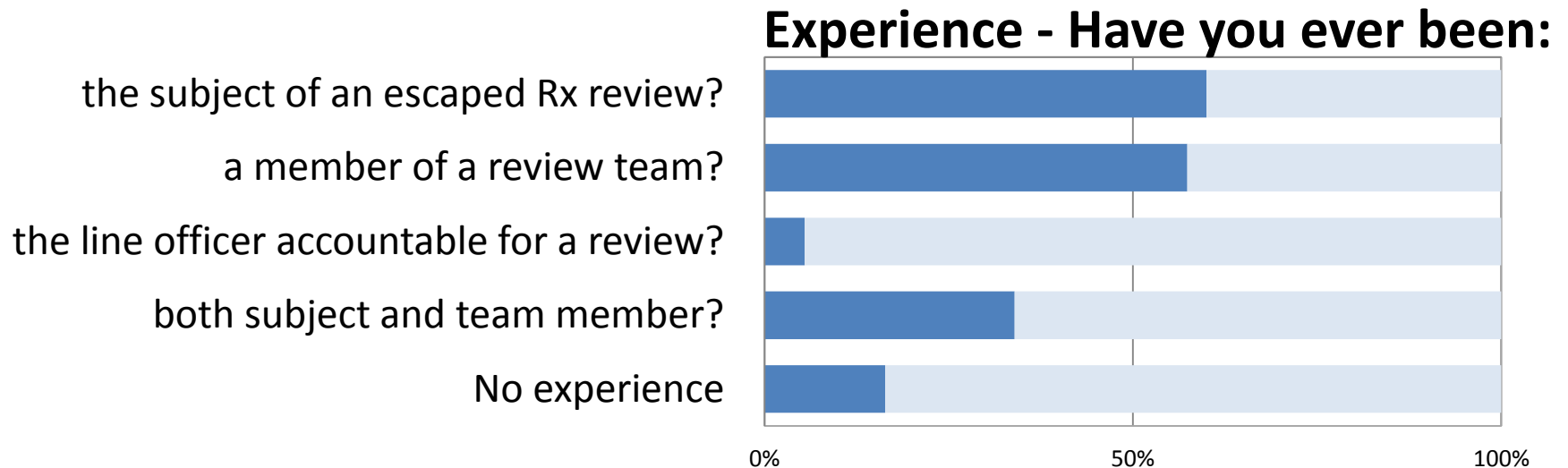
Multi-refuge FMO (4)  
Forest /Tribe FMO (6)  
Forest Fuels Specialist (5)  
Forest Fuels Planner (1)  
Forest Fire Staff Officer (1)  
Burn Boss (1)

## **Region/State**

Regional/Deputy Regional FMO (3)  
State/Regional Fuels (6)  
Regional Fire Ecologist (1)  
Regional Safety (1)  
Regional Asst Dir F&AM (1)

**National: TNC (1), FUTA (1), PFTC (1), LLC (1)**

# Participants – Experience with Reviews



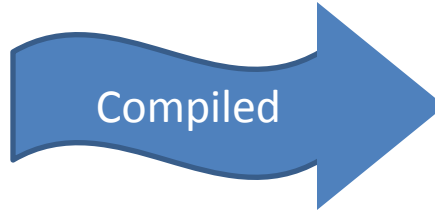
# Data and Analysis Methods

## DATA

## ANALYSIS

## PRODUCT

Workshop notes  
Flip-chart summaries



Workshop summary  
Flip chart summary

Audio recordings



Transcribed QA/QC



### a) Application Oriented

- syntheses  
GTR & chapters  
presentations
- tips and techniques  
Pod-casts

- recommendations

### b) Theory Oriented

- peer-review papers
- conference presentations

# Analysis

## **Instrumental: (What ) –**

- \* Synthesize and describe major types of learning
  - when/how/who/why
  - facilitators/barriers
  - recommendations

## **Systems: (How /Why) –**

- \* Use theory as lens
  - high performance: resiliency, learning
  - communications: rhetoric, dialogue

# Results











## **Major themes relate to:**

- Policy and Guidance
- Conducting a Review
- Transferring/Institutionalizing Lessons

drawn from points consistently made:

- across workshops
- across levels of the hierarchy
- across agencies

# Where is learning occurring?

	Event	Review Process	Review Product	Transfer Activities
Individual				
Burn Team				
Review Team				
Peers/Units				
Organization				

## Illustrative Narrative- overview

“ I get a little confused, because we keep talking about learning. ... And I’d ask, who’s supposed to be learning what? Because there’s all these different levels.

There’s the Burn Boss.

There’s the Holding Boss.

There’s a guy on the nozzle that could very well be learning something from it, and how they’re going to learn it is going to depend a lot on where it’s presented, how it’s presented.

Agency Administrators want to learn something else.

Policymakers might want to learn something else.

So it’s kind of like we take this thing, we make a document out of it and put it on the website, and all of a sudden, presto, it’s going to meet all of these different learning needs? It doesn’t seem like that’s possible. It seems like it’s missing all of the boats by trying to get all of them at once.”

*(FWS, Regional AFMO)*



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## Illustrative Narrative - overview

“ the bigger issue was for **the healing process** to start. It takes a mental, physical, **emotional toll** on everybody from the Burn Boss {uhhmmm} to the lighter to the Line Officer to the Fire Staff ...

... And to really get ...it behind you, ...[with] The report not being out, you're not able to get past it **to get closure**” *(USFS, Zone Fire Staff Officer)*

## Audience: Who desires what?

**Corrective (policy) Action:** “What we’re looking for at our level is findings, recommendations that need to be addressed by policy change or something like that. “(***National Fire Ops, BLM***)

**Personal improvement :** “I was pretty disappointed with the [] report. I was looking at the review team as kind of the experts ...to come in and tell me, well, these are the tricks of the trade or whatever .. the [] report was written to teach other people what happened on the [unit]. It wasn’t written to teach the [us] how to be better, {ah, hmm.”  
(***USFS, District Fuels Specialist***)

**Info to train/coach:** “I’m looking for ...something that I can maybe turn into a sand table exercise. ...from the actual players ... some kind of a bullet list that you can go through and sort of latch onto it.” (***NPS, Fuels Management Specialist***)

**“the story** is in the experience as well as all the decision-making leading up to lighting the match and following through with it...I want to hear the stories. “ (***Tribal FMO***)

## Audience: Who desires what?

**Due Diligence:** “Number one through seven in the policy guide, {laughter} seriously. That’s what I need when I’m on the receiving end of one of those until such time as that policy changes at the minimum.”  
(*USFS Regional F&AM*)

**Trends:** “Are there themes coming out that make our program very vulnerable in future planning and implementation and application?”  
(*USFS, Regional Fuels*)

## Illustrative Narrative: **How to improve learning?**

### REVIEW

**Clarify intent:** “Do we have the objective of reviewing policy and checking the seven steps **or** do we have an objective to facilitate a learning culture within our organizations?” (*USFS, AFMO*)

**Clear, Collaborative, Comprehensive and Transparent Direction:**

“Clarify the Delegation of Authority – ensure it covers who the audience is, what the purpose is, how it is to be conducted, what the products are. Work to include/align the various desires, such as from RO, Forest Sup, District Ranger. (*Flip-chart bullet*)

### REVIEW TEAM COMPOSITION

**Staff review team appropriately:** “ I keep going back to team makeup and how a team runs a review ...go in with the attitude of, hey, we want to be able to figure out what happened, learn from it, (*BIA, Regional Fuels*)

## Illustrative Narrative: **How to improve learning?**

### PAY ATTENTION TO TRANSFER

**Develop a personal connection to event:** “If I can create a personal connection to it, it has a lot more relevance, and I’m likely to learn those lessons, rather than if it’s another report or even a video interview or something that I can’t make a connection to.” (*USFS, Forest FMO*)

**Develop Transfer Mechanisms:** “there really isn’t that defined mechanism for getting the lessons learned on escaped prescribed fires out or even the review reports. “ (*USFS, Forest FMO*)

### FOLLOW-UP

**“Make sure those corrective actions happen,** and let all this political stuff, drop it out of the equation and try and get people .. engaged with us.” (*BIA, Regional Fuels*)

# Summary of themes

## Policy and Guidance

- General confusion about types of reviews; purpose and intent; flexibility; outcome
- General agreement that pursuing the seven
  - May be useful for WO, but not meeting field desires
  - But, may be due to perceived intent as opposed to specific elements.
- General desire for flexibility, scalability to review *all* types of outcomes
- General desire for learning oriented reviews focused on unit
- Desire ability to trend

## Conducting a Review

- Several critical pieces of a successful review:
  - Line officer intent and direction to Review Team clear, transparent to unit
  - Approach matters – questions v. listening -- Review team training/skills
  - Meet local culture where it is in terms of their learning orientation

## Transferring/Institutionalizing Lessons

- Desire for more effective transfer and incorporating lessons into practice

# How to make sense of this?

## How do we think about (what's our theory) of performance – safety, reliability....?

Respond to/Seek to Improve Outcomes

Think about Action & Learning

Build Resilience to Stress



# Improving Outcomes

**Compliance**

**Risk**

**Learning**



**Outcomes**

**'errors' result in blame**

**in more controls**

**Managers**

**enforce rules**

**are opportunities**

**Use techniques: MBO**

**Conflict is**

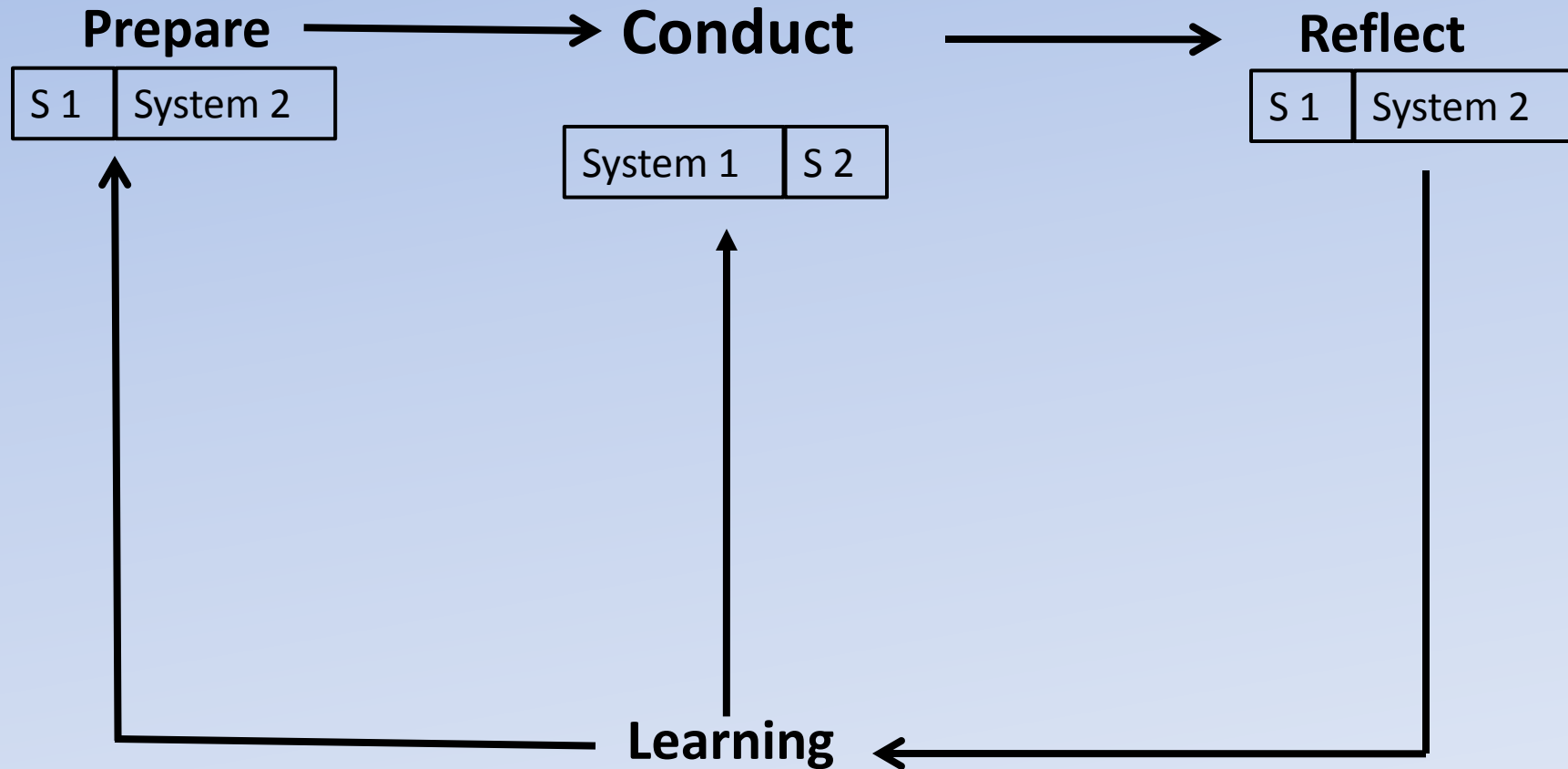
**unresolved, competitive**

**coach, support collaboration**

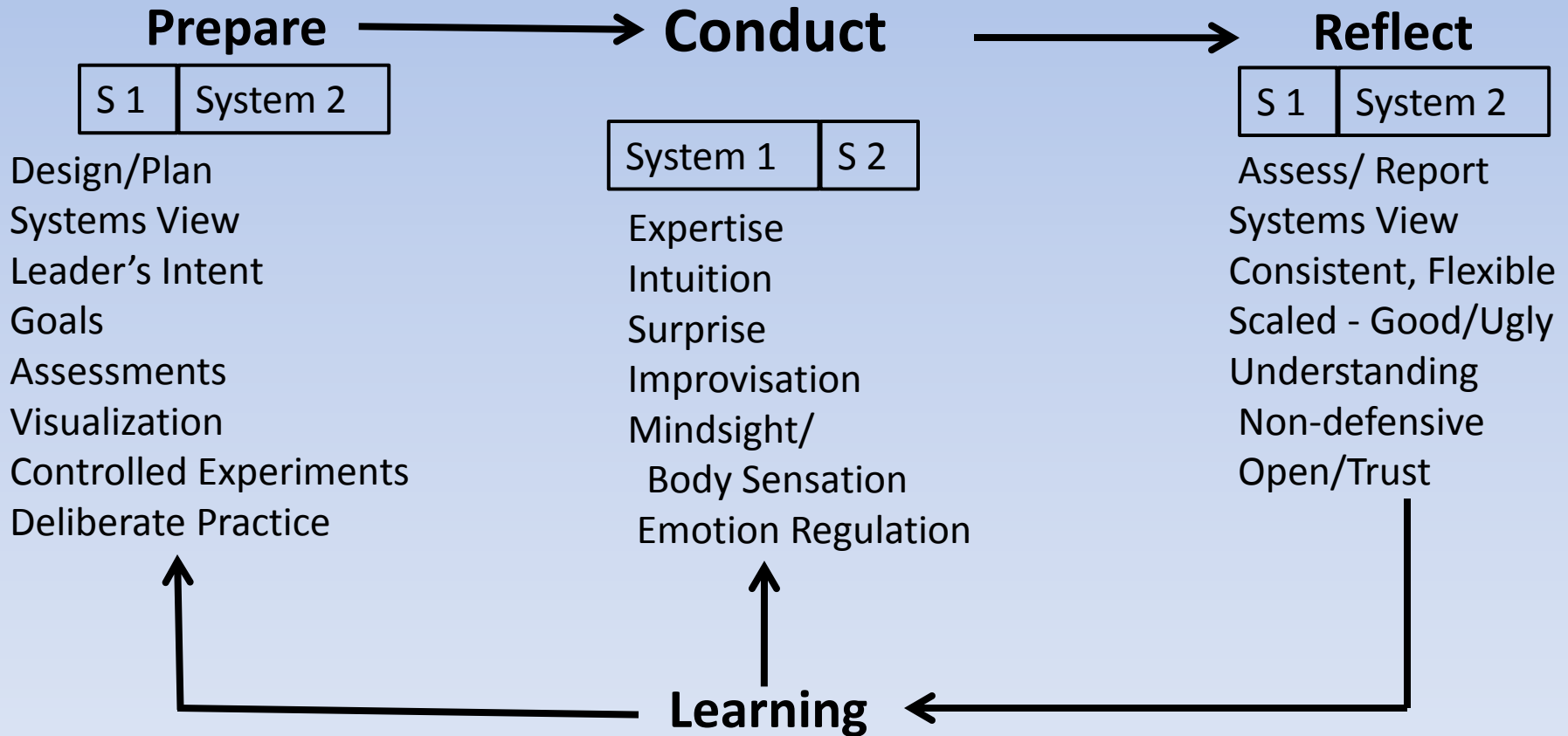
**discouraged**

**Understand,  
resolve to mutual benefit**

# Action and Learning



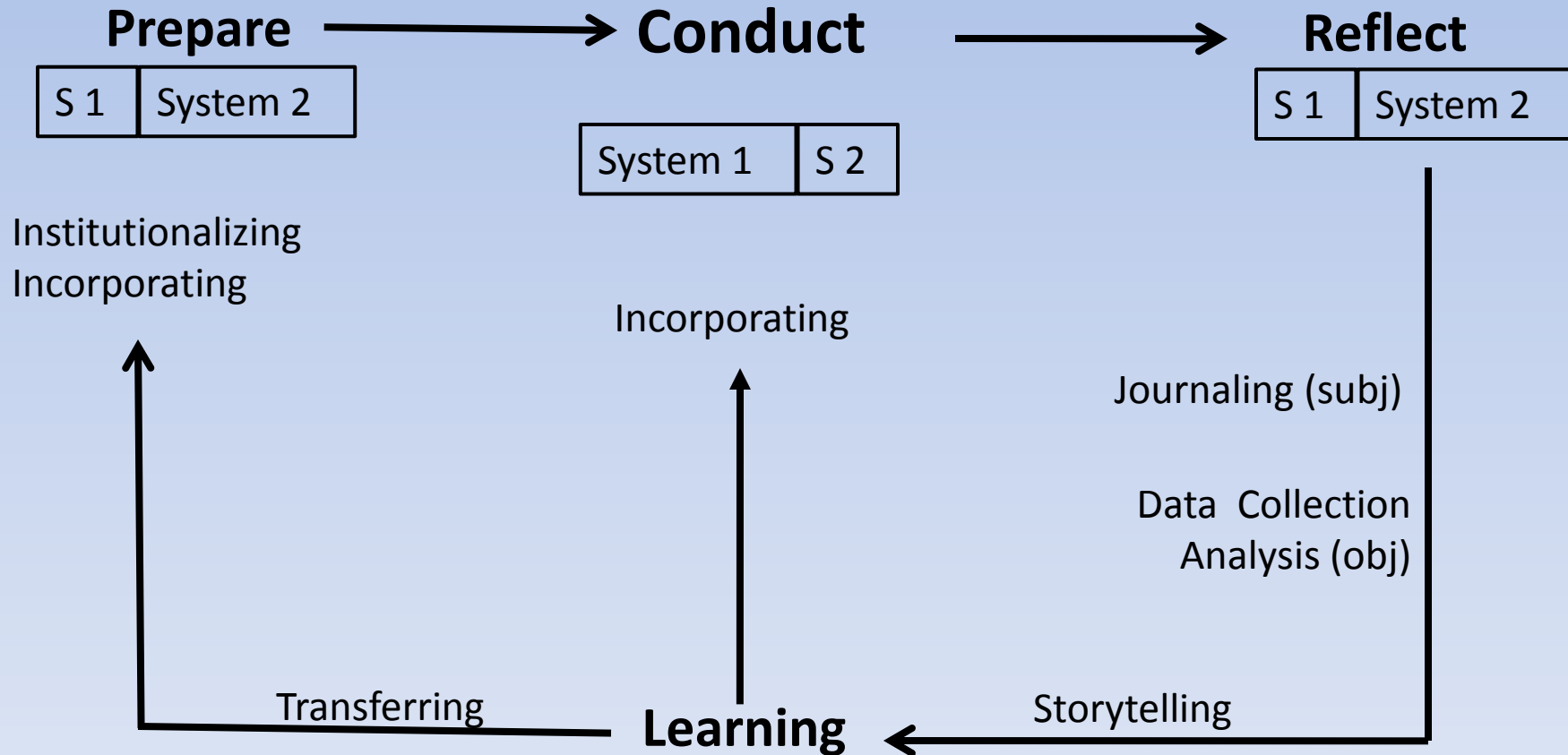
# Action and Learning



# Action and Learning

Confidence – Self/Other

Compassion - Self/Other



# Action and Learning

Confidence – Self/Other

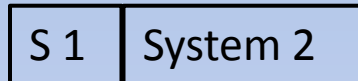
Compassion - Self/Other

Sand-tables   BAR   Pre-mortem

AAR

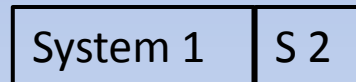
Outcome Review

**Prepare**



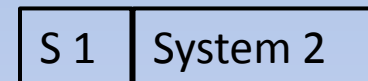
Institutionalizing  
Incorporating

**Conduct**



Sense-making

**Reflect**



Journaling (subj)

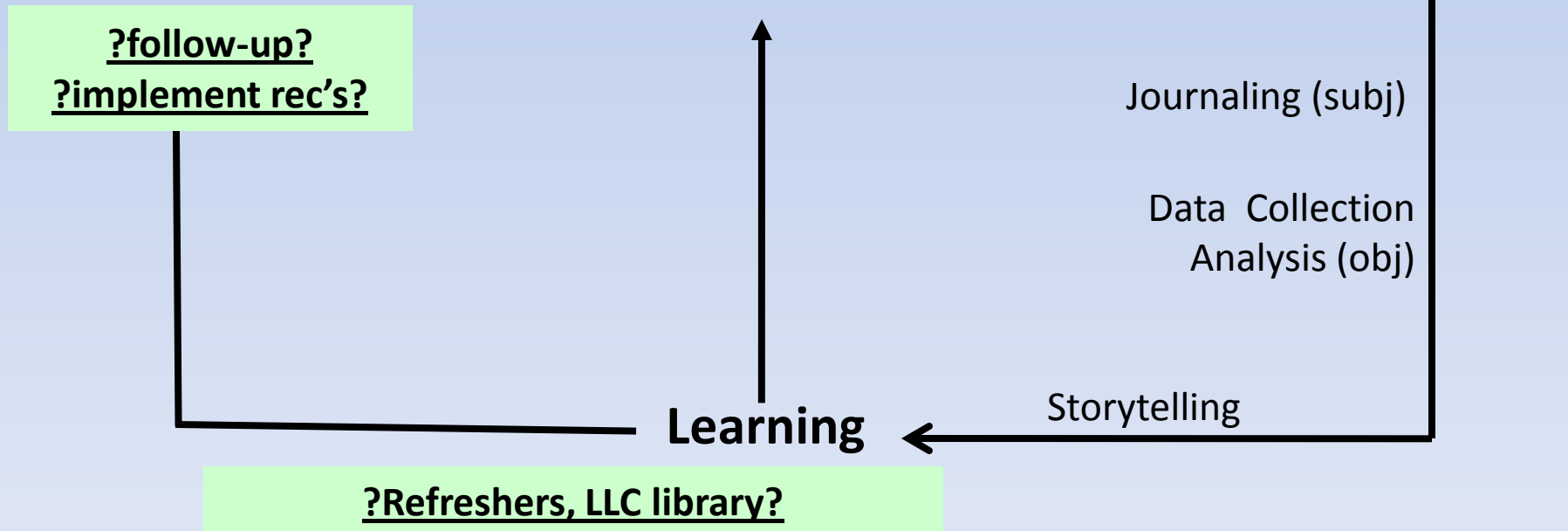
Data Collection  
Analysis (obj)

Storytelling

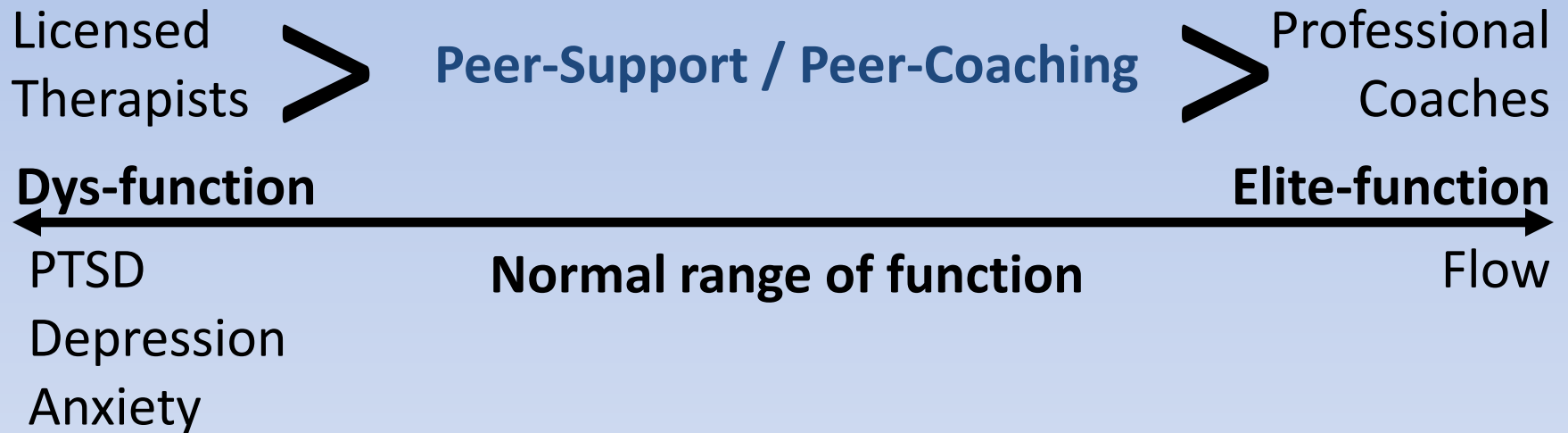
**Learning**

?follow-up?  
?implement rec's?

?Refreshers, LLC library?



# Build Resiliency to Stress



# Summary and Implications

- Data supports, adds detail to our models of learning and performance.
- Collectively, suggest several sorts of activities to pursue:
  - ❖ Vector towards learning on the Compliance – Risk – Learning Spectrum
  - ❖ Enhance learning by closing the Learning Loop
  - ❖ Emphasize coaching to build resilience to stress

# Discussion

